

OS-9 Newsletter

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Bellingham OS-9 Users Group

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Burke & Burke's

"The 6309 Book"

Everyone seems pretty excited about the Hitachi 6309 replacement for the 6809 processor chip in the Color Computer 3. People are buying up Chris Burke's *Power Boost* package (\$29.95) faster than he can get them produced. The companion package, *6309 Book* by Burke and Burke (\$24.95), is just now starting to be received in the mail by those who ordered it two months ago. The book also comes with a disk containing some other 6309 goodies, but what are they.

The disk is called *The 6309 Software Disk*. That doesn't reveal much, and I've been dying to know what this disk is going to have on it. FORTUNATELY, Terry Laraway received his *The 6309 Book* package in the mail and read to me over the phone what was included on the disk. So here it is:

XSM Assembler:

A new OS9 Level 2 assembler, similar to the ASM utility from Level 1, BUT.....

1. Support full 6309 and 6809 instruction sets
2. Symbol names may be any length
3. Expression evaluation uses 32-bit arithmetic
4. Automatically allocates symbol table memory
5. New option to generate BASIC-style ".BIN" format output to OS9 disks
6. Optional starting address allowed after END
7. Improved error messages

DISASM: 6809/6309 Disassembler disasm [-offset] name

DBG: A Modified Debugger

Patches that convert the Level 1 OS9 debugger into an extended debugger, plus....

1. Built-in disassembler

2. Breakpoints for both Emulation and Native modes
3. New command to toggle read-back of data after modification
4. New command to allow use of "*" to examine or modify any memory address: * 1 0 allows access to the OS9 direct page system variables.
5. All debugger variables are in high memory so that it can debug programs that use low-memory absolute addressing.

The following utilities are also included on the disk:

Ezgen 1.09, is used to patch your Level 1 debug utility and is also considered the utility for modifying boot files.

fcheck is a disk fragmentation checking utility. Used much like *dcheck*, reporting to the screen the fragmentation status of your disk.

fix is a utility to correct faulty CRC's due to patching.

Considering that *ezgen* cost \$19.95 alone and you're getting equivalent to a 1-inch thick book about the 6309 plus a 6309 debugger, disassembler and assembler.....\$24.95 is a steal!

BUY IT!

32MHz Crystal Clock Patch

For those of you who installed a 32MHz crystal to speed up your CoCo Dec'91 OS-9 Newsletter)..... Have you noticed your clock is running fast?

The solution is to reduce the tick count from 60 ticks/second to about 60*28/32 to compensate for the 32Mhz crystal. Run the stock software 50 and 60Hz clocks through the 'cmp' command. What I get follows below:

Differences: (#1 = 50Hz, #2 = 60Hz)

byte	#1	#2
=====	==	==
00000083	32	3C
000000D0	32	3C
000001AA	xx	xx

Major difference here to setup GIME for 50Hz so you will need to edit the following

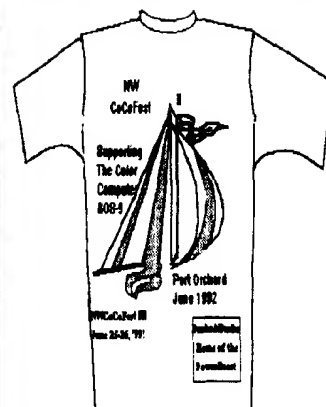
000001AB	98	3C
000001AF	98	06

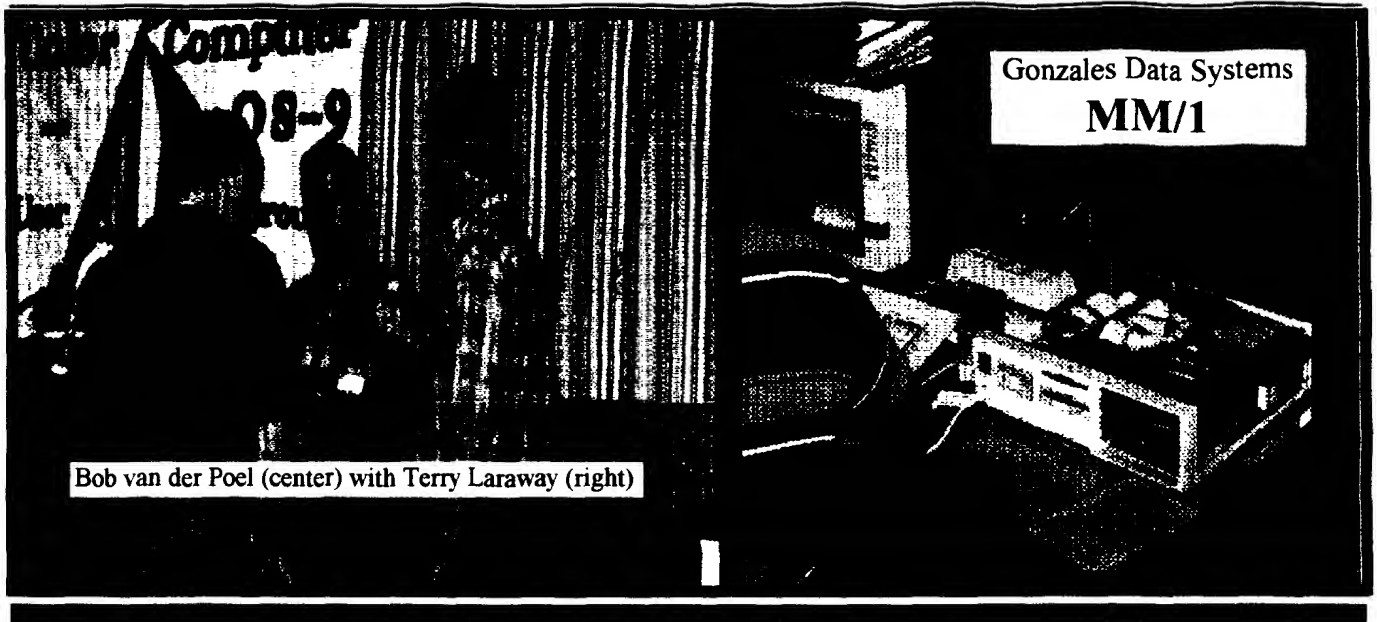
The 32 3C is hex for 50 60 decimal. The time slice count is set to 5 in the 50Hz clock, and even set to 2 in some clocks. So a modpatch would be to change the \$3C=60 to \$34=52 in the 60Hz clock.

--Gene Krenciglowa,FidoNET--

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Bob van der Poel (center) with Terry Laraway (right)

6551 Hardware Hack

By Terry Trapp

How many times have you said to yourself, "I wish my RS232 Pak would work correctly with my BBS." Dont you just hate it when you can't see modem responses? :(It's all because of the 6551 chip in your RS232 pak or Disto 4-in-1 board. It will not allow you to receive any information from the modem when there is no "Carrier detect", or "CD" for short. Bruce Isted saw this problem and decided to write a driver called "SACIA". It is a fully buffered driver that does one special thing it will allow you to swap "DSR" <Data Set Ready> and "CD" on your cable. DSR is always on when you have a modem hooked up. What you would do with this driver is swap pin 6 <DSR> and pin 8 <CD> (An inverted cable) & SACIA will look at the DSR location for carrier. CD will always be on, so you can see modem responses. That's fine and dandy with the 232 pak, but with the 4 in 1 board from Disto -- Now that's a little different.

The 4 in 1

I got my 4 in 1 three days ago. I took my boot disk over to Trix's house (John Farrar) and begged him to install my device drivers for the SC II & the 4 in 1 board. (He's the software dude, I'm the hardware dude--- together we make a good CoCo programmer. :)) He installed my new drivers but left SACIA in place, he just changed the loaction of where to find the 6551 chip. It should work right?? Eaaaa! Wrong answer thanks for playing! Tony did something different to his 6551 than the one in the Deluxe RS-232 Pak. I fired up RiBBS and BOOM! Carrier Detected! DARN! Ok, I'll disconnect my modem, it will lose carrier then! Eaaaa, Sorry wrong answer thanks for playing! It still had carrier. Why is it doing this??? Look on page 5 of your Disto 4-in-1 board manual. In the middle of the page you see-- *The CTS (Clear To Send) and DSR (Data Set Ready) input signals to the ACIA are always enabled. This means the ACIA device will always transmit, regardless of what is connected to it.*

What Tony doesn't tell you is that the 6551 <The ACIA device> will ALWAYS transmit regardless of DSR. I sat down and thought to myself-- "I bet he just "Hard Wired" DSR on!" <Hard Wired means physicaly wired> As I came to find out after about 2 hours of trial and error voltage readings, Pin 16 is at 0 volts when CD is on, and at 5v when it is off. The same is true with Pin 17. When DSR is on, 0v is on Pin 17. When DSR is off, 5v is present on Pin 17. <I found this out with my Deluxe RS-232 Pak>.

pin	on	off	use
16	0v	5v	CD
17	0v	5v	DSR

DSR, Pin 17 on the 4 in 1 is soldered to ground. That means there is no voltage on that lead. Therefore DSR is ALWAYS on. That is why I ALWAYS detected carrier with the inverted cable and SACIA. The 4-n-1 CAN'T read DSR from the modem, the

hardware isn't connected from the modem to the 4-n-1's 6551. The Deluxe RS-232 DOES have the hardware, therefore an inverted cable can be used with it.

BE CAREFUL MODIFYING YOUR 4 n 1, SERIOUS DAMAGE CAN OCCUR IF YOU ARE NOT CAREFUL. IF YOU HAVE ANY PROBLEMS UNDERSTANDING THE MOD.-----***DO-NOT-ATTEMPT-IT***==

Get help from someone if you can, or leave me mail on my bbs. Electronics work on blue smoke, if you accidentally let the smoke out----- they wont work! :)

The Modification

Here is how to mod. the 4-in-1 for SACIA or any other "Inverted Cable" driver.

- 1) Disconnect all power and connections from the Disto SC II.
- 2) Unscrew the 4 screws that hold the cover on.
- 3) Remove the cover carefully.
- 4) Get a static wrist strap and put it on.
- 5) Place the wrist strap's ground to the SC II's CoCo edge card ground located at either end of the CoCo connector.
- 6) Carefully disconnect the 4-in-1 board.
- 7) Locate the 6551ap chip.
- 8) Locate Pins 16 & 17 on the 6551ap.
- 9) Flip the board to the BACK side.
- 10) Locate the trace going from Pin 16 to a Node on the circuit board. <A Node looks like a little round solder blotch, the trace continues on the top side of the 4 in 1 board>
- 11) Cut the trace as close to pin 16 as possible with an "Exacto knife". Be SURE the trace is CUT. Take a continuity reading <if you can> to be sure.
- 12) Flip the board back over to the TOP side and cut Pin 7 off of the circuit board. CUT IT CLOSEST TO THE BOARD **NOT THE CHIP**.
- 13) On Top of the board, solder a piece of solid wire through the node that used to goto Pin 16.
- 14) Solder the other end of the wire to pin 17 of the 6551. NOT the pin on the board, the chip itself.
- 15) Flip the board over to the BACK side.
- 16) Solder another wire to Pin 16 of the 6551.
- 17) Solder the other end of the wire to ground. <I used the larger trace located closest to the pin, GOING UNDER the 6551 chip.>
- 18) Re-Install the modified 4 in 1. <Be careful to get all the connectors back in their correct positions>
- 19) Disconnect the static strap.
- 20) Place the cover back on the 4 in 1, be sure none of the mod. you made will short to ground.
- 21) Connect everything back together.
- 22) Pray.
- 23) Turn on the CoCo, If you get an "OK" with a "Disto Cursor" boot OS9 and see if it works!! If your CoCo crashes when you cut it on, remove the cover to the SC II and check all your connections.

The Conclusion

And there you have it! Simple Huh?? CD is always on, and DSR is connected to the CD from the modem. SACIA will change it back to CD for you!! No need to even set RiBBS up for an inverted cable. No need for an inverted cable, it is all done my the Mod. and SACIA!!!

I hope you have no trouble with this mod. If you need any help, you can reach me at (615)-781-8679 DATA 2400 8n1, or through Fidonet at 1:116/41. Also you can send mail to me via TRIX on Delphi.

"CoCo Max" This document is free.

SACIA is Copyrighted By Bruce Isted and comes with The Eliminator Software Revision 1 Update

The Elimator is Copyrighted By Frank Hogg Labs.

The DISTO SuperController II and 4-n-1 board are Copyrighted by DISTO.

--Terry Trap;Delphi/OS9--

6309 CRASH

by Wes Gale

Well, for a few days now I have been using the 6309 with the Burke & Burke's Booster patches, but WITHOUT the grfdrv patched. I ran booster, and made a new boot, but left the old grfdrv (well, the latest one, but not the booster patched one...). I haven't had a problem yet. Before I was getting crashes all over the place, and no simple lock-up either. It would go BOOM! I got quite a colorful screen though.

It's not actually grfdrv screwing it up. It's just one more module using the new code that an interrupt can occur in. What happens is, for the block memory moves you have to set the new register, if an interrupt happens between setting it and calling the block move (the next instruction). It returns from the interrupt with the new register most likely corrupted, which makes things go haywire. There is no way around it unless the new code is all surrounded by interrupt disabling commands, or going into Native mode. The first of the two choices is the easier of the two, but may defeat the purpose. More potential lost characters from a port, and stuff like that. Native mode will eliminate all of this, and even execute every ML instruction 1 cycle faster than before. It will all make a difference once it gets done. It is a big job - someone will have to rip apart OS9 completely and patch EVERYTHING. Not any fun to me...

--Wes Gale;FidoNET--

How to "Patch"

by Mark W. Farrell

OR...Do I Need to Patch....IF SO.....What Utility Shoul I Use.....How Do I Correct the CRC....??????

Well, some of you are old <grin> pro's at patching software, and some are new to the idea. The REAL problem is not the actual patch, but rather exactly "How do 'I' do it?!?!?". Fear not friends, help is on the way!

First, I would like to make some generalizations so this is easier to follow.

MODULE There are four main types of modules:

- 1.) Executable Memory Module
 - a.) Commands, Utilities, Applications, Subroutines
 - b.) System (OS9P1, OS9P2), File managers, Drivers
- 2.) Device Descriptor Module
 - a.) Floppy disk, Hard disk, RS-232, Pipe, Printer
/dx or /fx , /hx or /dx, /tx , (none), /p
- 3.) INIT Module
 - a.) Only one here: INIT
- 4.) Data Module

At this time, we are only concerned with types 1, 2, and 3.

PATCH: A Patch is a DOCUMENTED change, to alter or improve the function of a module or the entire enviroment. This is done in a logical method that is reversable. The Patch should also be transparent to the other components of the operating system otherwise the system WILL probably crash. (Transparent means backwards and forwards FULL compatability unless otherwise stated in the docs. This is usually the sign of a well thought out patch and an excelent programmer!)

So far there are about a dozen ways (or more) to patch your software. The problem is that there is no SINGLE way for one method to work in all cases. Here are some of the situations that will be addressed:

- 1.) Executable modules (Typ. found in CMDS directory)
 - 2.) System modules (Typ. found in OS9BOOT or your MODULES dir)
 - 3.) Device descriptors (Typ. found in OS9BOOT or your MODULES dir)
 - 4.) Device drivers (Typ. found in OS9BOOT or your MODULES dir)
 - 5.) LSN0 (Logical Sector Number Zero)
 - 6.) DIRECTORY ENTRIES (MIGHT get a deleted file back for you)
- That seems to size it up for now, let's look at the utilities you will need to perform these patches.

Program Name/new rev	Author/Part of	Price	Where found
cobbler / edition 7	OS9 Level-2 You probably have it	-----	TANDY
dEd / 3.0 (?)	Douglas DeMartinis BRI (DELPHI handle) Roger A. Krupski	Free	DELPHI
dpoke / edition 1	This came with my SARDIS DMC package. It may be public domain by now. (?)	???	???
ezgen / 1.09	Chris Burke, also comes with all packages that need to patch OS9BOOT (Go Chris !!!)	\$19.95	Mail order
ipatch / edition 1	Bob Santy	Freeware	DELPHI/CIS
makpatch / edition 1	Bob Santy	Freeware	DELPHI/CIS
modpatch / edition 4	OS9 Level-2. You	-----	TANDY

newcrc / edition 1	probably have it		
os9gen / edition 9	See 'dpoke' above	-----	?
patch / ?	OS9 Level-2	-----	TANDY
qtip / 3.1	ComputerWare	-----	? (defunct(?))
save / edition 3	Frans Lichtenberg	Freeware	DELPHI
	OS9 Level-2	\$19.95	TANDY
	Devleopment Kit		
	Also found on side 2		
	of the M-VUE disk		
	merged with pmpts!		

NOW you ask, "Well, when do I use these and HOW am I supposed to figure out what patch-file goes with which patch-utility???"

Here we go:

1.) You find a compressed file on DELPHI/CIS/Your favorite BBS, and you see (or hear) that everybody and their siblings <grin> have downloaded this file. The "Brief comment" about the file says "This is a patch to rid your system of a nasty bug that does XYZ to your system."

- a.) if your system does "XYZ", get this patch NOW.
- b.) if you think your system did "XYZ" once, get it now.
- c.) if your not sure then leave a forum/mail message to the author asking, "Do I need this patch, and why?"

2.) Now you have the patch file. If it is compressed, do the following:

- a.) create a temporary subdirectory to work in and 'CHD' to it (ar can create it's own directories and upset your file system)
- b.) copy the file to this directory
- c.) use this table to 'un-compress' the file

Extension	Util	Command line
AR or ar	Ar	ar -xa [patchfile].ar
PAK or pak	pak	pak -x [patchfile] (NO EXTENSION!)
ARC or arc	dearc	dearc [patchfile].arc

d.) there will (should) be one or two filenames such as: readme, read_me, readme.doc, readme_first, [patchfile].doc, install.doc, etc.

READ ALL OF THESE BEFORE YOU DO ANYTHING ELSE

* Disaster WILL strike unless you do this. You will then *
 * find yourself with a system that used to work. Patching *
 * system can be easy and dangerous all at the same time *

e.) find the name of the files you need to patch/change and WRITE THEM DOWN! (Print the docs if you can)

Now is when the fun starts! In the previous step, we read ALL the text files that came with the patch. In one of them the patchfile author SHOULD have explained the PROPER method to install the patch. If not, then one of the text files should tell you ALL of the files that were originally included. If you have ALL of the patchfile files then you can use the next table to TRY patching your system/file/module.

WARNING/WARNING/WARNING/WARNING/WARNING/WARNING

* BEFORE YOU GO ANY FARTHER, Make a BACKUP or COPY of *

* the file you are about to patch.!!!!DO IT OR ELSE!!!! *

FOR DISK FILES:

Note: The file extensions are NOT exclusive to each patching method. Be as aware as possible of the actual patching method to be used!

Extension	Patch util	Command
[patchfile].PAT	dEd	discussion follows

*** dEd ***

Using dEd to patch a disk file is not too hard. It requires a little preperation though. Assuming a PAT file or info found in a text file in the format:

PAT format:

```
l filename
c aaaa xx yy---
c aaaa xx yy |
c aaaa xx yy |---Write all this info down or print it out
c aaaa xx yy |
c aaaa xx yy---
v
```

TEXT format:

There is no 'real' format involved. Normaly you will see something like this:

```
* offset data *
* aaaa yy *
* aaaa yy *
* aaaa yy *
* aaaa yy *
* aaaa yy *
* aaaa yy *
```

**"Don't forget to 'verify' the file after you make the changes!" **

Note: Please notice that the 'old' data is not given. This can get you into trouble if you do not have the same version that the [patchfile] author used. Some will give you the modules CRC in a 'BEFORE and AFTER' the patch. This is the ONLY way you can be sure that you are patching the proper version of the file.

If there are more than twenty lines here then you will probably want to use the modpatch method.

Example: Using Steven B. Goldbergs 'echo' utility renamed to "Eko"

ded [pathname]

If all is well, a screen that looks like a dump listing will appear on the screen:

```
LSN=$00 00
 0 1 2 3 4 5 6 7 8 9 A B C D E F 0 2 4 6 8 A C E
00: 87 CD 00 7F 00 0D 11 81 57 00 1C 01 92 45 6B EF .M.□....W....Eko
10: 01 28 63 29 31 39 38 38 20 53 42 47 0F 00 0F 01 .(c)1988 SBG....
20: 1F 12 34 10 E6 80 C1 5C 26 21 E6 80 C1 5C 27 1B ..4.f.A\&!f.A\'.
30: CA 20 C1 63 27 1D C1 66 26 04 C6 0C 20 0D C1 6E J Ac'.Af&.F. .An
40: 26 04 C6 0A 20 05 8D 1B 5D 27 D9 E7 A0 0C 01 C1 &.F. ...]'Yg ..A
50: 0D 26 D1 10 9E 00 35 10 86 01 10 3F 8C 25 01 5F .&Q...5....?.%.
60: 10 3F 06 30 1F 5F 8D 02 8D 00 A6 84 80 30 81 09 .?.0. ....&..0..
70: 22 09 34 02 86 0A 3D EB E0 30 01 39 74 B2 F5 ".4...=k`0.9t2u
```

CMD:

Let's say I want to change the name to Eco. The PAT file would look like this:

```
l eko /* 'link' to eko (we assume it's in memory) */
c 000e 6b 63 /* 'change' address 000e from 6b to 63 (k to c) */
v /* 'verify' CRC (calculate the new module CRC) */
```

Now, with dEd there is an edit mode that you enter by pressing 'e'. The cursor will then be positioned over the '8' at the top left corner of the Hexadecimal data. Use the arrow keys to move the cursor until it is over the '6' at address 00:e. Then type '63' and notice the alphanumeric (right col) Eko now reads Eco. Press enter and you have made the change but we are not done yet.

Note: With dEd you can also press BREAK after entering the EDIT mode to let you enter ASCII data (right side). This may ONLY be used if the patch is being made to an ASCII string. Since this example IS a string, you could move the cursor over the character and press BREAK.

Note: YOU MUST TAKE SPECIAL NOTICE if you are going to patch the very last character in a string/name/pathname. If you look before you change anything, you might see that the LAST character has the high bit set to '1'. Looking at 'Eko' you will notice that the 'o' in the module name is a hexadecimal 'EF'. This is because OS9 uses the high bit to determine the end (and/or length) of the string. If you alter this character, YOU MUST either enter it in HEX or you can enter it in ASCII if you hold the ALT key down, and then press the character key you wish to change. Holding the ALT key, sets the high bit for you. (Easy, huh?)

Now press 'w', and you will be prompted "Are you sure?" press 'y' and the changes will be written to the disk. Hold on, one more key to press. We altered the data in the file, but we did not update the CRC yet. Now press 'v' and the dEd will recalculate the CRC and update the file. Press 'q', and you are done.

Once you have done this, you will get the feel for it and you will find that changing ten bytes is not much more work than one! Just remember that you MUST WRITE the data to the disk before you change the sector you are looking at. Failure to do so WILL NOT produce the desired results as dEd DOES NOT update the sector data unless you tell it to!!!! You do not have to verify the file until you are done with all the patching. dEd has many more uses, but we will get to them later. I hope!

IPatch

Extension	Patch util	Command
[patchfile].IPC	ipatch	ipatch patchfile.ipc oldfile newfile (-v)

IPatch ONLY works this way. Any experimentation will probably not produce desired results! IPatch is mostly a way around large update problems. Makpatch is used to make the IPC file. This method of file upkeep is probably the most fool-proof I have seen. There is only one option and that is a verify pass to see if the IPC has produced an intact output file. If you are a programmer, these file will be very important to you.

ModPatch

Extension	Patch util	Command
[patchfile].PAT	MODPATCH	discussion follows

Modpatch is a memory based patching system. If you can LOAD it into memory you can PROBABLY use/develop a PAT type patchfile. This method also requires a little slight of hand.

- 1.) LOAD [file]
- 2.) RENAME [file] [file.org]
- 3.) MODPATCH [patchfile].PAT
- 4.) SAVE CMDS/[file] [file]
- 5.) If you are satisfied with the operation of the patched module then DELETE [file.org] unless it is required for compatability.

System Memory Patching modules in memory

Extension	Patch util	Command
[patchfile].PAT	modpatch	modpatch [patchfile].PAT

Ok, now you patched the module but you **have** to write it somewhere (right?). If you patched a module in the KERNAL (REL, BOOT, OS9P1) or if you patched a module in OS9BOOT (OS9P2 - Whatever) there are two ways you can do this.

1.) SAVE

save module.new module

This command takes 'module' out of memory and saves it to the disk in a file 'module.new'. OS9GEN or EZGEN may be used to install the patched modules.

2.) COBBLER

cobbler /xx (/xx = the drive with your new formatted disk in it)

If you patch REL, BOOT, or OS9P1 then this IS the best way to go. This command takes ALL of the os9 boot system (kernel and os9boot) and rewrites it to a FRESHLY formatted disk. This is a very simple way to make changes to your system.

This includes things like Disk formats, Serial port(s). Patches, Window colors, etc...

Here is a small example:

- 1.) WRITE PROTECT YOUR GOOD BOOT DISK
- 2.) decide on the new boot disk format
- 3.) use DMODE/XMODE/MODPATCH to make the changes to your system (remember to dmode the drive you are writing to for the proper format for step 4)
- 4.) format a floppy disk (new if you have it)
- 5.) use cobbler on the NEW, FORMATTED disk
- 6.) make a CMDS directory on the new disk and copy SHELL and GRFDRV to it.
- 7.) use IDENT -s /xx/os9boot. If all of the modules verify 'GOOD', then you are ready to boot the new disk. If a module shows up bad, then you must check the method you used to change or patch it. Mabey you forgot to do the 'v' after you made your changes with modpatch.

3.) OS9GEN

Os9gen is probably one of the most avoided methods of patching. However, it is one of the easiest ways for you to make many kinds of bootable OS9 systems.

As an example, I have FIVE different BOOTLIST files. (Soon to be SIX : BootList.6309

- BootList.old** This has all the ORIGINAL OS9 Level 2 stuff
- BootList.mv** This is the ORIGINAL Multi-Vue BootList
- BootList.new** This is my CURRENT BootList for my OS9Boot
(All of the modules in the MODULES directory)
(have a '.new' extension. This file also has)
(my new dirvers and descriptors for my hard)
(disk and floppy system. No games and less)
(VDG screen descriptors.)
- BootList.alt** This is my CURRENT BootList for my ALTBoot
(ALTBoot is only for BURKE&BURKE XT-ROM users)
(This file is the came as BootList.new except)
(some files have a '.alt' extension as these)
(might be older/newer/untested versions of)
(the ORIGINAL/CURRENT modules found in other)
(BootList files.)
- BootList.games** You can guess what this would have in it :-)

Copy your 'BootList' file to 'BootList.new'. Then edit 'BootList.new' and change 'module' to 'module.new'.

Now you can use the following command line: **os9gen /xx <BootList.new #48k**

This command assumes that you are in the MODULES directory and the file BootList.new is ALSO in the MODULES directory.

What's the #48k for??? It adds memory to the process and SPEEDS things up. This may be used with MOST UTILITY programs. If you get an 'ERROR #207' drop the extra memory request as the utility probably allocates extra memory as it needs it.

REVIEW:

- 1.) A patch is an alteration to your system. This should NEVER be done unless you have verified all preliminary information.
 - a.) The patch docs have been read and understood.
 - b.) The module you are about to patch is the SAME version that the patch docs specify.
 - c.) You have the proper utilities to install the patch.
 - d.) It is NOT past your bed time. (Tired people do very strange things!)
 - e.) You HAVE made a working backup of whatever it is you are patching.
 - f.) If the docs say that you need any previous patches or that several patches need to be installed at the same time, then you MUST do as the docs say. A partially patched system is NOT a happy sysetm!
- 2.) A properly installed patch should do what the docs claimed it should and NOTHING else.
- 3.) Just because the patch seems popular, it is not allways needed.
- 4.) Verify the need for this patch with the type of problem it will cure or the new function(s) it will give your system.
- 5.) Be patient! If you install the patch and it doesn't seem to work, then get some help! There is nothing more frustrating than a system that kinda worked and now it doesn't work at all.



Club Activities Report

*Bellingham OS9 Users Group - Longview/Kelso CoCo Club
Mt. Rainier CoCo Club - Port O'CoCo Club - Seattle 68xxx Mug*

Bellingham OS-9 Users Group

At our July 22nd meeting we reviewed most major databases for the CoCo including Extended Basic Programs.

Extended Disk Basic database reviewed were Derringer's *Pro Color File* which is written completely in Basic allowing for easy modification and streamlining for faster operation. It is an impressive package and does everything including calculations and customized screen reports. There are also several supplementary programs, i.e., *Side Wise*; *Simon*, a "fastkey" streamlining utility; *Pro Color Forms*, a customized form creation utility; *Master Design*, which allows users to combine graphics and text to create sophisticated letterheads.

Elite File was another Extended Disk Basic database reviewed. This is a machine language program with very good documentation and very easy to use, also very fast EXCEPT for sorting which is done on disk. This is necessary so that there is no limitation to the size of the database. Script files can be written with an ASCII text editor to "automate" the execution of your database files. It's weakness is that it doesn't use index files for fast sorting but it is a true relational database and therefore judged to be more powerful than *Pro Color File*.

Under OS-9 we reviewed Tandy's *Profile*. Craig DuBois showed us how to use the "derived" fields to create calculated results. While most databases do their calculations only in their report print outs, *Profile* actually create it's derived fields as it reads in each record. *Profile* also uses indexes which speeds things up considerably. Although judged not as easy or as flexible as Tandy's RS-DOS version *Color Profile*, it still is one of the more powerful databases under OS-9 and is currently being sold as *Data Master* by Computerware.

Data Windows was not actually viewed at this meeting but remarks were shared that it was "cool" looking and a Multivue compatible database but not as powerful as *Profile/DataMaster*.

Of course *Sculptor* was reviewed and believe it or not was determined to be the easiest relational database to use. It does everything for you. It even will pop up an example of how to set up field descriptors. Only complaint was that it was so slow compared to *Profile*. Why? Everything, including the the input and report screens is compiled into compact binary files. Maybe because it is written in C instead of machine language?

Seattle 68xxxMUG's *PDS Database* was demonstrated. This is only a "Rolodex" type of database and does not allow

user defined field creation. However, it was impressive to look at and considering it was created as a Basic09 instructional project, it is probably the most powerful Public Domain "Rolodex" type of database. One obvious flaw noted however, was that the sort procedure was accomplished in RAM which will result in a crash if the database file is larger than the sort parameters permit. Scott Honaker has promised to write a new disk sort routine to replace the ram version.

August meeting hopefully will feature "playing around" on a GIMIX OS9 Level III Computer.

Port O CoCo

The July 20th meeting featured a "State of the CoCoFest" report by Donald Zimmerman, and a presentation by Terry Laraway on CoCo Magazine that publish on disk format only.

The CoCoFest exceeded everyone's expectation. Participation was almost triple over last year's fest. Presentations by notables such as Bob van der Poel, Chris Burke and Wes Gale provided "star" attractions sorely missing from the previous year. Plus an extremely large and successful Swap Meet and Andre LaVelle from CoCoPro and the large quantity of stuff from the Computer Bank Charity, all came together to make this an extremely impressive event.

Financially, the CoCoFest came out well in the black, providing a working budget for next year's CoCoFest.

Donald suggested that, since the Bowling Alley will not be available next year, the event could take place perhaps at a school with much larger facilities, and that other computer clubs might be invited to take part in the "FEST" sponsoring their own events, presentation, etc. That the Port O'CoCo Club would retain the rights to host the breakfast and luncheon and that the swap meet be a combined event.

This brought up the subject of liability and another suggestion by Donald that we pursue obtaining a "non-profit" status so that we can take advantage of more free advertising and fund raising resources plus liability protection.

Following further discussions it was suggested that a timeline be developed so that the preparation for next year's CoCoFest might be stretched out so that more people could be involved in the organization without any last minute rush.

Terry Laraway's presentation featured a viewing of two different "Magazines on Disk" available on Extended Disk

Basic format. The two magazines were **Rick's CoCo Friend's Disk Magazine** and the Mid Iowa and Country CoCo **Upgrade** by Terry Simons.

Rick's was the more formal of the two with a very attractive menu and easy "log-in" screen that asked questions about your system so that it could automatically format the magazine presentation for optimum appearance to your screen. Picture files selected from the menu were automatically viewed to your system's screen format. Text files were presented on a very attractively formatted screen and print out options to your printer was a simple keystroke option. *Rick's CoCo Friend's Disk Magazine* is available from Rick's Computer Enterprise, PO Box 276, Liberty, KY 42539.

The *Upgrade* Disk Magazine was very similar and features *Orphan Ware* Programs. These are commercial, copyrighted programs, such as Tom Mix Games, Telewriter Word Processor, that maybe still available, but are no longer advertised, or the company may no longer exist and the software is not available to purchase. The *Upgrade* was not quite as professional in it's format and not available on a monthly basis, but if you subscribe for 12 issues, you will get your 12 issues, but probably spread out for more than a year.

Mention was made of another Disk Magazing, *Nine Times Nine* by JWT Enterprises. This is an OS9 only Magazine and a 6 issue subscription is \$34.

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Seattle 68xxxMug

The July 7th meeting at Gugenheim Hall on the U of W Campus featured Rodger Alexander installing a 6309 cpu "piggy-back" (see the June issue of the *OS-9 Newsletter*) on the original 6809 cpu. Unfortunately, Rodger had some problems with finding the +5 volt pin on the cpu and was not able to finish his presentation. However, Burke and Burke's *PowerBoost* manual and a print out of the 6309 spec sheet were available for those in attendance to check out.

One of our members purchased a 512K board with ram chips for \$35 at the CoCoFest from a guy from Omak, Washington. The ram chips were not the right type of ram chips and had to be replaced, so we replaced the chips with 256x1 chips. And it worked! However two of the chips we used were questionable so were placed in a high ram socket location. At the next meeting we will run a RAM check program to check the validity of each chip on the board.

Donald Zimmerman came to the meeting to "hawk" his wares. Donald had only two extra large T-shirts left over from the CoCoFest. T. Warren bought one of them for a night shirt. Donald also had quite a few of the CoCoFest Coffee Mugs. Unfortunately, my wife bought quite a few of them.

Next meeting will be August 4th at 7:30.

No report from Mt. Rainier CoCo Club

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3404 Illinois Lane

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